A new species of *Luperus* from the Canary Islands

(Col. Chrysomelidae)

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Up to now *Luperus wollastoni* Paiva seems the only representative of the genus to be known from the Canary Islands. Rather recently, however, I happened to find, in the island of La Palma, a second species which will be described below under the name of *L. bispiniger* sp. nov.

Of *L. wollastoni* I also found some specimens. Moreover I have had access, by the courtesy of Dr. Walter Hackman, to a series brought together in three of the islands by the late Prof. Håkan Lindberg and now in the collections of the Zoological Museum of the University in Helsingfors. And so I am able also to complete the old diagnosis.

Luperus (Calomicrus) wollastoni (Paiva, 1861).

Calomicrus wollastoni Paiva, 1861, p. 210; Wollaston, 1864, p. 405 and 1865, p. 361. (Islas de Tenerife, Hierro y La Palma.)

Head less wide than pronotum (index 0.7-0.8). Frontal keel narrow, indistinctly limited forwards. Postantennal protuberances more or less triangular, limited backwards by a straight transverse furrow, and with microreticulation of transverse meshes. Vertex with an indistinct longitudinal furrow and with scattered and shallow punctures and strong and nearly isodiametric microreticulation.

Pronotum about 1.6 times wider than long, less wide than elytra (index 0.6-0.7). Anterior side nearly straight, not reborded. Lateral sides convex in the middle but straightened towards the corners, reborded. Anterior corners slightly salient. Posterior side convex and reborded. Disc rather flat, with an indistinct transversal impression which is somewhat curved laterally towards anterior corners and more

or less interrupted in middle. Puncturation as in vertex, in central portion more scattered. Microreticulation of meshes of varying shape and not so strong as in vertex.

Elytra subparallel, narrowly reborded, 3.5-4.0 times longer than pronotum, rather mat. Disc somewhat depressed. Humeral protuberances well marked. Basal protuberances large but indistinct. No vestiture except for some very fine and very scattered suberect hairs. Puncturation much stronger and closer than in pronotum. Microreticulation fine and on disc often indistinct. Wings well developed.

Abdomen punctured, somewhat wrinkled transversally but indistinctly microreticulate, shining, and not very closely beset with long, decumbent hairs.

Antennal segments approximately equal in length except segments 2 and 3 reaching little more than half the length of the others. Segment 10 a trifle shorter than 9 and 11.

Hind tarsi with 1st segment slightly longer than remaining segments taken together (index about 1.15). Claws strongly bent at base and provided with a tooth reaching somewhat more than half the length of the claw itself.

Male. Antennae somewhat longer, about 0.8 times as long as body. Segments 1 and 2 of fore and middle tarsi dilatate and first segment nearly as broad as third. Last sternite with two deep and narrow longitudinal incisions from posterior margin. Resulting median lobe subquadrangular and with hind margin slightly concave and with a large and distinct impression devoid of microsculpture and very shining.

Penis at first tapering slightly for a short distance from proximal end, then gradually widening and reaching its largest width not far from distal end, and finally tapering rather abruptly until the broadly rounded apex. Internal sac provided in middle and distal portion with two rows of spines of somewhat varying length. Fig. 1a and b.

Female. Antennae somewhat shorter, about 0.7 times as long as body. Segments 1 and 2 of anterior and middle tarsi not dilatate and clearly less wide than 3. Last sternite simple, acuminate but with rounded apex. Spermatheca Fig. 1c

Measurements. Body length 3.2-4.4 mm, width 1.4-1.8 mm.

Coloration. Upper side, legs, and proximal antennal segments straw yellow. Pronotum and particularly vertex more reddish yellow. Suture (except foremost portion), base of 1st segment of hind tarsi, 3rd and 4th segments of tarsi, distal segments of palpi, scutellum, fore mar-

gin of clypeus more or less darker, brownish. Antennae from 4th or 5th segment gradually blackening towards apex. Underside black except for head being reddish yellow and pronotal sides, parts of coxae and (only with females?) hind and side margins of sternites being yellow. Mentum often blackish.

The specimens from La Palma have their elytra somewhat more strongly puncturate than those from Hierro and Tenerife, and the form from the latter island seems to me, on an average, somewhat smaller than those from the other two islands. The sexual characters, however, are practically identical. From La Gomera I have not seen any specimens.

Localities. Tenerife: Agua Mansa, 9 specimens, 15-V-1947 (Lindberg leg.) and 5 specimens, 1-VII-1964 (Israelson leg.); supra Icod, 3 specimens, 9-V-1947; Bailadero, 2 specimens, 23-IV-1950, and 6 specimens 2-VI-1957 (Lindberg leg.).

La Palma: Barranco del Agua, 1 specimen, 11-VI-1965; and Barranco de Jurado, 5 specimens, 16-VI-1965 (Israelson leg.); Santa Cruz de la Palma, 1 specimen, 3-IV-1950; Mazo, 12 specimens, 6-IV-1950 (Lindberg leg.).

Hierro: El Golfo, 9 specimens, 28-III-1950 (Lindberg leg.).

Some of the specimens from Hierro and La Palma, collected in March or April are newly hatched and so are most of the specimens collected in June or July. It seems probable, therefore, that there are at least two generations annually.

Luperus (Calomicrus) bispiniger sp. nov.

Holotype: male. Canary Islands: La Palma: Barranco de Jurado, about 800 m., 16-VI-1965 (Nr. 388). In my collection.

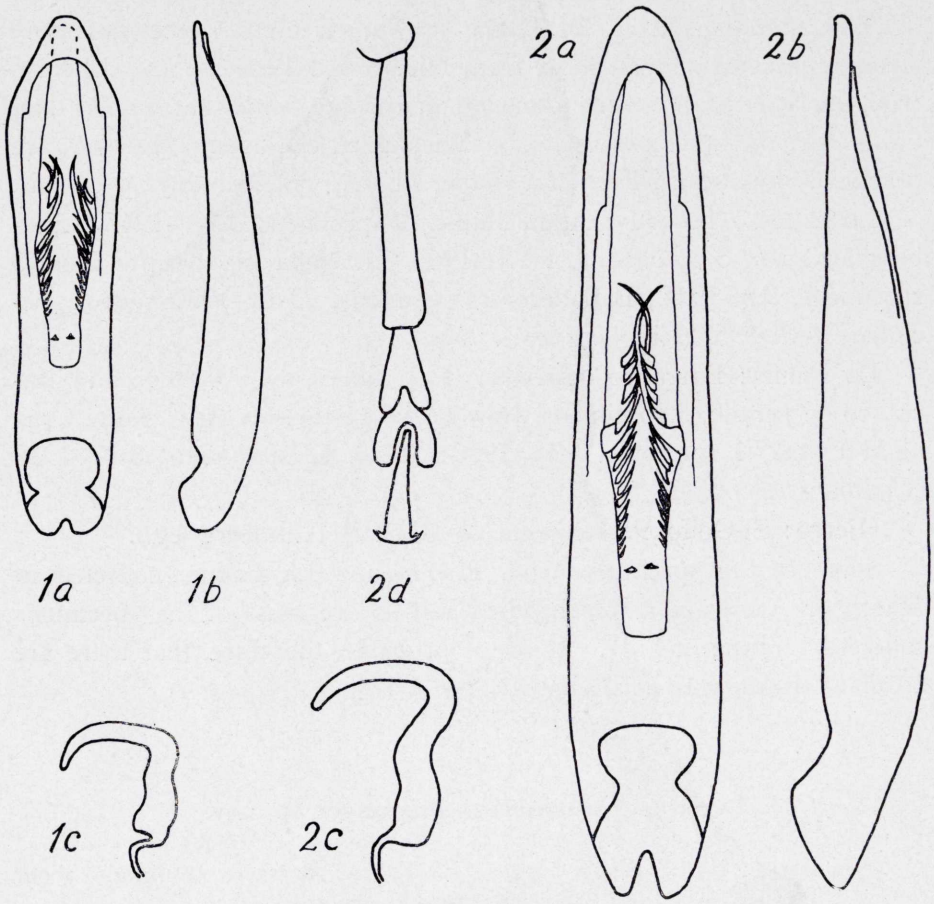
Closely resembling the foregoing species but easily distinguished by its much larger size already. Furthermore differing in the following respects.

Pronotum more elaborately sculptured. Interruption of transversal impression resulting in a medial keel, backwards changing into an indistinct longitudinal furrow. On each side of keel two small protuberances, one larger in front of transversal impression and one more indistinct behind it.

Abdomen more distinctly microreticulate laterally and particularly

in posterior portion. Median lobe of ultimate sternite with an indistinct impression, microsculptured and mat.

Penis with largest width close to proximal end and from there tapering up to the rounded apex. Internal sac armed in the distal half



Figs. 1-2.—*Luperus wollastoni* Paiva, from Agua Mansa in Tenerife: 1a) *penis;* ventral view; 1b) ditto, lateral view; 1c) *spermatheca. L. bispiniger,* n. sp. (holotype): 2a) *penis,* ventral view; 2b) ditto, lateral view; (paratype): 2c) *spermatheca;* 2d) *metatarsus.*

with two series of minor spines and in addition two very long ones. Fig. 2a and b.

Coloration of underside reddish yellow except for metasternal episterna and a small basal portion of fore and middle coxae being somewhat darker, and for metasternum and sternites being black.

Measurements (in millimetres). Total length 5.0. Head width in

front of eyes 0.65, across eyes 1.09, behind eyes 0.94. Eye's maximum diameter 0.50. Pronotum length 0.83, width in front 1.27, in middle 1.45, at base 1.40. Scutellum width 0.35, length 0.19. Antennae total length 4.2, length of segments 1-11: 0.43, 0.22, 0.22, 0.42, 0.43, 0.44, 0.45, 0.44, 0.41, 0.36, and 0.40 respectively. Metatibiae length 1.70. Metatarsae total length 1.27, length of segments 1-4: 0.72, 0.22, 0.13, and 0.20 respectively (Fig. 2d). Penis length 1.82.

Paratypes: 2 females. Same data as for holotype.

Essentially corresponding to holotype with the following exceptions.

Body length 5.5. Antennae relatively shorter, 0.75 times as long as body (with male 0.85). First and second segments of fore and middle tarsi not enlarged, clearly less wide than segment 3. Abdomen black but parts of lateral margins yellow. Anal sternite rather broadly acuminate and with a longitudinal impression in posterior half.

Spermatheca, fig. 2c.

The type locality is situated close to the lower border of the pinal zone. The specimens of *L. bispiniger* were evidently rather recently hatched. They were swept from the vegetation, rather dry and poor in the season, of grass and herbaceous plants living at the bottom of the barranco. In a neighbouring spot some specimens of *L. wollastoni* were caught in a similar way. The last-named species is reported to live on *Cistus*-bushes. Such bushes were not uncommon in the barranco but all attempts to find, by beating the bushes, a connection with the *Luperus*-species were in vain.

In a paper on some Mediterranean species of *Luperus,* Codina Padilla (1963) calls attention to the fact that two of his North-African species should properly be classified among the genus *Luperodes* Motsch. on account of their first metatarsal segment being much elongated. However, the author is inclined to doubt the generic value of the latter genus. In the Canarian species also the first segment of the metatarsi is very long and evidently those are, in this respect at least, closely related to the North-African forms alluded to.

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